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10/663,599

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EXAMINER

MIRZADEGAN, SAEED S

ART UNIT

PAPER NUMBER

2109

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/663,599

Applicant(s)

ZHAO, WEN

Examiner

Saeed S. Mirzadegan

Art Unit

2109

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 06/09/2005, 09/14/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statements (IDS) submitted on 09/14/2004 & 06/09/2005 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

2. The disclosure is objected to because of the following informalities: Page 6, Line 30, refers to "SIM 256", where it is identified as "mem 262" on Fig. 2.

Appropriate correction is required.

Claim Objections

3. **Claim 1** is objected to because of the following informalities: Page 2, 12th line of claim 1 should read "plurality of wireless" not "plurality of a wireless".

Appropriate correction is required.

4. **Claim 21** is objected to because of the following informalities: Page 7, 8th line of claim 21 should read "for the mobile" not "for a mobile".

Appropriate correction is required.

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5. **Claim 21** is objected to because of the following informalities: Page 7, 12th line of claim 21 should read "plurality of wireless" not "plurality of a wireless".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1,3,4,9,21,23,24,29** are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Gopiknath (US PG PUB No. 2003/0129971A1) which will hereafter be referred to as Gopiknath.

7. Regarding **Claim 1**, Gopiknath discloses, In a mobile communication device, a method of selecting a wireless communication network for communication (**page 1, [0009] lines 1-4, teaches a method and apparatus that allows a mobile station to choose a wireless communication network**) comprising the acts of: maintaining a plurality of network selection tables, each network selection table corresponding to one

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of a plurality of traffic classes associated with quality of service criteria and including a plurality of system identifications; causing one of a plurality of software applications on the mobile communication device to be executed; selecting one of the network selection tables associated with a traffic class of the executed software application; **(page 2, [0016] lines 12-17, 19-22 & Fig. 3, teaches a network selection table defined by various classes of service from which a suitable wireless communication network is selected for the type of application running on the mobile station)** scanning to identify a plurality "of a wireless" should be -- of wireless -- communication networks in a coverage area of the mobile communication device **(page 3, [0033] lines 6-8, teaches discovery or otherwise searching for communication channels);** and selecting one of the identified wireless communication networks for communication based on the selected network selection table associated with the traffic class of the executed software application **(Page 3, [0033] lines 10-12, page 4, [0034] lines & [0035] lines 7-12, & Fig. 4, teaches selecting a suitable communication channel based on traffic class of service required by the mobile station).**

8. Regarding **Claim 3**, Gopiknath discloses, the method of claim 1, wherein the plurality of network selection tables include a preferred roaming list associated with a voice application and an additional network selection table associated with a Web browser application **(page 1, [0007] lines 1-23 & page 2, [0016] lines 12-17, teaches network selection tables for voice and Internet browsing communication services).**

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9. Regarding **Claim 4**, Gopiknath discloses, the method of claim 1, wherein the plurality of software applications comprises at least two of: a video player application, an audio player application, a video game application, a voice-over-IP application, an e-mail application, and an Internet data application (**page 1, [0007] lines 1-23 & page 2, [0016] lines 12-17, teaches High-end and basic communication service applications**).

10. Regarding **Claim 9**, Gopiknath discloses, the method of claim 1, wherein a preference is determined for each one of the plurality of system identifications in each network selection table based on a previous access attempt. (**page 5, [0044] lines 1-4, teaches the mobile station may learn the preferred providers based on the usage**).

11. Regarding **Claim 21**, Gopiknath discloses, a computer program product, comprising: a computer storage medium; computer instructions stored on the computer storage medium; the computer instructions being for: maintaining a plurality of network selection tables, each network selection table corresponding to one of a plurality of traffic classes associated with quality of service criteria and including a plurality of system identifications; causing one of a plurality of software applications "for a mobile" should be -- for the mobile -- communication device to be executed; selecting one of the network selection tables associated with a traffic class of the executed software application (**page 2, [0016] lines 12-17, 19-22 & Fig. 3, teaches a network selection table defined by various classes of service from which a suitable wireless**

communication network is selected for the type of application running on the mobile station); scanning to identify plurality "of a wireless" should be -- of wireless -- communication networks in a coverage area of the mobile communication device (page 3,[0033] lines 6-8, teaches discovery or otherwise searching for communication channels); and selecting one of the identified wireless communication networks for communication based on the selected network selection table associated with the traffic class of the executed software application (Page 3, [0033] lines 10-12, page 4, [0034]lines & [0035] lines 7-12, & Fig. 4, teaches selecting a suitable communication channel based on traffic class of service required by the mobile station).

12. Regarding **Claim 23**, Gopiknath discloses, the computer program product of claim 21, wherein the plurality of network selection tables include a preferred roaming list associated with a voice application and an additional network selection table associated with a Web browser application (**page 1, [0007] lines 1-23 & page 2, [0016] lines 12-17, teaches network selection tables for voice and Internet browsing communication services).**

13. Regarding **Claim 24**, Gopiknath discloses, the computer program product of claim 21, wherein the plurality of software applications comprises at least two of: a video player application, an audio player application, a video game application, a voice-over-IP application, an e-mail application, and a Web browser application (**page 1, [0007]**

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lines 1-23 & page 2; [0016] lines 12-17, teaches High-end and basic communication service applications).

14. Regarding **Claim 29**, Gopiknath discloses, the computer program product of claim 21, wherein a preference is determined for each one of the plurality of system identifications in each network selection table based on a previous access attempt, and the selecting of one of the identified wireless communication networks for communication is based on an order of the determined preference (**page 5, [0044] lines 1-4, teaches the mobile station may learn the preferred providers based on the usage).**

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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15. **Claims 2 & 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoaib et al. (US Patent No. 7161914B2) which will hereafter be referred to as Shoaib et al. in view of Gopiknath.

16. Regarding **Claim 2** Gopiknath does not teach the method of claim 1, further comprising: constructing the plurality of network selection tables for the plurality of traffic classes based on past network service history.

17. In the same field of endeavor, Shoaib et al. teach, **(col.7, lines 3-10 & 21-24, col.11, lines 28-39, network selection table of traffic classes based on past network history or any other heuristics).**

18. It would have been obvious to one of ordinary skills in art at the time of the applicant's invention to combine Gopiknath and Shoaib et al. to achieve faster and better communication channel selection by using the information gathered earlier for a service area.

19. Regarding **Claim 22** Gopiknath does not teach the computer program product of claim 21, further comprising: constructing the plurality of network selection tables for the plurality of traffic classes based on past network service history.

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20. In the same field of endeavor, Shoaib et al. teach, **(col.7, lines 3-10 & 21-24, col.11, lines 28-39, network selection table of traffic classes based on past network history or any other heuristics).**

21. It would have been obvious to one of ordinary skills in art at the time of the applicant's invention to combine Gopiknath and Shoaib et al. to achieve faster and better communication channel selection by using the information gathered earlier for a service area.

22. **Claims 5,25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Matta et al. (US PG PUB No. 2003/0069018A1) which will hereafter be referred to as Matta et al. in view of Gopiknath.

23. Regarding **Claim 5**, Gopiknath does not teach the method of claim 1, wherein the quality of service criteria comprises one of: a delay criterion, a delay variation criterion, and a data loss criterion.

24. In the same field of endeavor, Matta et al. teach, **(page 2, [0017] lines 1-4, page 3, [0027] lines 1-4 the quality of service criteria comprises of packet delay, packet jitter, and packet loss).**

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25. It would have been obvious to one of ordinary skills in art at the time of the applicant's invention to combine Gopiknath and Matta et al, since the Quality of service parameters are well known in the art and make the selection process more specific.

26. Regarding **Claim 25**, Gopiknath does not teach the computer program product of claim 21, wherein the quality of service criteria comprises one of: a delay criterion, a delay variation criterion, and a data loss criterion.

27. In the same field of endeavor, Matta et al. teach, **(page 2, [0017] lines 1-4, page 3, [0027] lines 1-4 the quality of service criteria comprises of packet delay, packet jitter, and packet loss).**

28. It would have been obvious to one of ordinary skills in art at the time of the applicant's invention to combine Gopiknath and Matta et al, since the Quality of service parameters are well known in the art and make the selection process more specific.

29. **Claims 6,8,26,28**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gopiknath as applied to claims 1 and 21 above, in view of Jouppi et al. (US PG PUB No. 2002/0177413A1) which will hereafter be referred to as Jouppi et al.

30. Regarding **Claim 6**, Gopiknath does not teach the method of claim 1, wherein the plurality of network selection tables are pre-programmed.

31. In the same field of endeavor, Jouppi et al. teach, **(Page 7, [0046] lines 1-3, lines 15-18, [0047] lines 1-6, default profiles stored on the mobile device by the manufacturer of the device).**

32. It would have been obvious to one of ordinary skills in art at the time of the applicant's invention to combine Gopiknath and Jouppi et al., to facilitate the communication channel selection and reduce the processing overhead.

33. Regarding **Claim 8**, Gopiknath does not teach, the method of claim 1, wherein the plurality of traffic classes include at least two of the following: a background traffic class, an interactive traffic class, and a streaming traffic class.

34. In the same field of endeavor, Jouppi et al. teach, **(Page 2, [0007] col. 2, lines 2-7, Table 1., traffic classes comprises of any number of conversational, streaming, interactive or background traffic classes).**

35. It would have been obvious to one of ordinary skills in art at the time of the applicant's invention to combine Gopiknath and Jouppi et al., since monitoring and selecting based on multiple parameters yields more suitable matches.

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36. Regarding **Claim 26**, Gopiknath does not teach the computer program product of claim 21, wherein the plurality of network selection tables are pre-programmed.

37. In the same field of endeavor, Jouppi et al. teach, **(Page 7, [0046] lines 1-3, lines 15-18, [0047] lines 1-6, default profiles stored on the mobile device by the manufacturer of the device).**

38. It would have been obvious to one of ordinary skills in art at the time of the applicant's invention to combine Gopiknath and Jouppi et al., to facilitate the communication channel selection and reduce the processing overhead.

39. Regarding **Claim 28**, Gopiknath does not teach, the computer program product of claim 21, wherein the plurality of traffic classes include at least two of the following: a background traffic class, an interactive traffic class, and a streaming traffic class.

40. In the same field of endeavor, Jouppi et al. teach, **(Page 2, [0007] col. 2, lines 2-7, Table 1., traffic classes comprises of any number of conversational, streaming, interactive or background traffic classes).**

41. It would have been obvious to one of ordinary skills in art at the time of the applicant's invention to combine Gopiknath and Jouppi et al., since monitoring and selecting based on multiple parameters yields more suitable matches:

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42. **Claims 7,10,27,30**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gopiknath as applied to claims 1 and 21 above in view of, Guilford et al. (US PG PUB No. 2002/0087674A1) which will hereafter be referred to as Guilford et al.

43. Regarding **Claim 7**, Gopiknath does not teach, the method of claim 1, wherein the quality of service criteria comprises at least two of: a bandwidth criterion, a delay criterion, a delay variation criterion, and a data loss criterion.

44. In the same field of endeavor, Guilford et al. teach, **(page 5, [0053] lines 1-9, lines 15-21 and Fig. 4, routing table or any kind of table or grouping of information that can be downloaded to the wireless device).**

45. It would have been obvious to one of ordinary skills in art at the time of the applicant's invention to combine Gopiknath and Guilford et al., since as the number of parameters that are monitored for selection are increased, the better the selected match would be thereby refining the selection.

46. Regarding **Claim 10**, Gopiknath does not teach, the method of claim 1, wherein a priority is determined for each one of the plurality of system identifications in each network selection table based on a previous access attempt.

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47. In the same field of endeavor, Guilford et al. teach, **(page 9, [0096] lines 4-10, the mobile station makes the selection based on determination of priority in view of the user profile).**

48. It would have been obvious to one of ordinary skills in art at the time of the applicant's invention to combine Gopiknath and Guilford et al., to allow for considering other factors such as cost in the selection process.

49. Regarding **Claim 27**, Gopiknath does not teach, the computer program product of claim 21, wherein the quality of service criteria comprises at least two of: a bandwidth criterion, a delay criterion, a delay variation criterion, and a data loss criterion.

50. In the same field of endeavor, Guilford et al. teach, **(page 5, [0053] lines 1-9, lines 15-21 and Fig. 4, routing table or any kind of table or grouping of information that can be downloaded to the wireless device).**

51. It would have been obvious to one of ordinary skills in art at the time of the applicant's invention to combine Gopiknath and Guilford et al., since as the number of parameters that are monitored for selection are increased, the better the selected match would be thereby refining the selection.

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52. Regarding **Claim 30**, Gopiknath does not teach, the computer program product of claim 21, wherein a priority is determined for each one of the plurality of system identifications in each network selection table based on a previous access attempt, and the selecting of one of the identified wireless communication networks for communication is based on an order of the determined priority.

53. In the same field of endeavor, Guilford et al. teach, **(page 9, [0096] lines 4-10, the mobile station makes the selection based on determination of priority in view of the user profile).**

54. One of ordinary skills in art at the time of the applicant's invention would benefit from combining Gopiknath and Guilford et al., to allow for considering other factors such as cost in the selection process.

55. **Claims 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over Gopiknath in view of Jouppi et al.

56. Gopiknath discloses, a plurality of network selection tables for storing in the memory, each network selection table corresponding to one of a plurality of traffic classes associated with quality of service criteria and including a plurality of system identifications, select one of the network selection tables associated with a traffic class of the executed software application: scan to identify a plurality of wireless

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communication networks available in a coverage area of the mobile communication device; and select one of the identified wireless communication networks for communication based on the selected network selection table associated with the traffic class of the executed software .

57. Gopiknath does not teach, a mobile communication device, comprising: memory; a plurality of software applications for storing in the memory; one or more processors; the one or more processors being operative to: execute one of the software applications.

58. In the same field of endeavor, Jouppi et al. teach, **(Page 4, [0025] a wireless mobile communications device such as Nokia 9210 communicator comprising of data processing functions and mobile station functions, one or more CPU, DSP, memory means).**

59. It would have been obvious to one of ordinary skills in the art at the time of the applicant's invention to combine Gopiknath and Jouppi et al., since the components comprising a mobile communication device are well know in the art and the method is for use in a mobile communication device and further the method enhances the channel selection in the mobile device.

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60. **Claims 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over Gopiknath in view of Jouppi et al. as applied to claim 11 above and in further view of Shaib et al.

61. Gopiknath & Jouppi et al. disclose, the mobile device of claim 11, wherein the one or more processors are further operative to: construct the plurality of network selection tables for the plurality of traffic classes based on past network service history.

62. In the same field of endeavor, Shoaib et al. teach, **(col.7, lines 3-10 & 21-24, col.11, lines 28-39, network selection table of traffic classes based on past network history or any other heuristics).**

63. It would have been obvious to one of ordinary skills in art at the time of the applicant's invention to combine Gopiknath & Jouppi et al. and Shoaib et al. to achieve faster and better communication channel selection by using the information gathered earlier for a service area.

64. **Claims 13,14,16,18,19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gopiknath in view of Jouppi et al. as applied to claim 11 above.

65. Regarding **Claim 13**, Gopiknath discloses, the mobile device of claim 11, wherein the plurality of network selection tables include a preferred roaming list

associated with a voice application and an additional network selection table associated with a Web browser application (**page 1, [0007] lines 1-23 & page 2, [0016] lines 12-17, teaches network selection tables for voice and Internet browsing communication services**).

66. Regarding **Claim 14**, Gopiknath discloses, the mobile device of claim 11, wherein the plurality of software applications comprises at least two of: a video player application, an audio player application, a video game application, a voice-over-IP application, an e-mail application, and an Internet data application (**page 1, [0007] lines 1-23 & page 2, [0016] lines 12-17, teaches High-end and basic communication service applications**).

67. Regarding **Claim 16**, Gopiknath does not teach the mobile device of claim 11, wherein the plurality of network selection tables are pre-programmed.

68. In the same field of endeavor, Jouppi et al. teach, (**Page 7, [0046] lines 1-3, lines 15-18, [0047] lines 1-6, default profiles stored on the mobile device by the manufacturer of the device**).

69. Regarding **Claim 18**, Gopiknath does not teach, the mobile device of claim 11, wherein the plurality of traffic classes include at least two of the following: a background traffic class, an interactive traffic class, and a streaming traffic class.

70. In the same field of endeavor, Jouppi et al. teach, **(Page 2, [0007] col. 2, lines 2-7, Table 1., traffic classes comprises of any number of conversational, streaming, interactive or background traffic classes).**

71. Regarding **Claim 19**, Gopiknath discloses, the mobile device of claim 11, wherein a preference is determined for each one of the plurality of system identifications in each network selection table based on a previous access attempt. **(page 5, [0044] lines 1-4, teaches the mobile station may learn the preferred providers based on the usage).**

72. **Claims 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over Gopiknath in view of Jouppi et al. and in further view of Matta et al.

73. Regarding **Claim 15**, Gopiknath & Jouppi et al. do not teach the mobile device of claim 11, wherein the quality of service criteria comprises one of: a delay criterion, a delay variation criterion, and a data loss criterion.

74. In the same field of endeavor, Matta et al. teach, **(page 2, [0017] lines 1-4, page 3, [0027] lines 1-4 the quality of service criteria comprises of packet delay, packet jitter, and packet loss).**

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75. It would have been obvious to one of ordinary skills in art at the time of the applicant's invention to combine Gopiknath and Matta et al, since the Quality of service parameters are well known in the art and make the selection process more specific.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bridges et al. (US Patent No. 6546246 B1) teach Intelligent roaming system with over the air programming, Spaur et al. (US Patent No. 6122514) teach Communications channel selection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saeed S. Mirzadegan whose telephone number is 571-270-3044. The examiner can normally be reached on M-F 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Assouad can be reached on 571-272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SSM



PATRICK ASSOUD
SUPERVISORY PATENT EXAMINER